

REMARKS

Claims 1-25 are pending in the present application.

Claims 1-25 have been rejected.

Claims 1-25 remain in the application. Reconsideration of the claims in view of the following arguments is respectfully requested.

In Sections 2-14 of the September 5, 2002 Office Action, the Examiner rejected Claims 1-9, 11-19 and 21-25 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,630,066 to *Gosling* (hereafter, simply "*Gosling*"). In Sections 15-18 of the September 5, 2002 Office Action, the Examiner rejected Claims 10 and 20 under 35 U.S.C. §103(a) as being unpatentable over the *Gosling* reference in view of United States Patent No. 6,070,198 to *Krause et al.* (hereafter, simply "*Krause*"). Among other things, the Examiner asserted that the *Gosling* reference (at column 9, line 61, to column 10, line 16) discloses the Claim 1 limitation regarding "inserting a quantity of information adjacent to the stack in the storage device, the quantity of information having an initial state." The Examiner also asserted that the *Gosling* reference (at column 10 lines 34-46 and column 12, lines 43-59) discloses the Claim 1 limitation regarding "inspecting the quantity of information so as to identify any deviation from the initial state and thereby detect corruption associated with the stack in the storage device."

The Applicant respectfully disagrees with the Examiner's description of the devices disclosed in the *Gosling* reference and the *Krause* reference and directs the Examiner's attention to Claim 1, which contains the following unique and novel limitations:

1. A method for detecting corruption associated with a stack in a storage device, the method comprising the steps of:
 inserting a quantity of information adjacent to the stack in the storage device, the quantity of information having an initial state; and
 inspecting the quantity of information so as to identify any deviation from the initial state and thereby detect corruption associated with the stack in the storage device. (emphasis added)

The Applicant respectfully asserts that the above-emphasized limitations of the amended Claim 1 are not disclosed, suggested or even hinted at in the *Gosling* reference or the *Krause* reference, or in the combination of the *Gosling* reference and the *Krause* reference.

As noted above, the Examiner asserted that the *Gosling* reference (at column 9, line 61, to column 10, line 16) discloses the Claim 1 limitation regarding “inserting a quantity of information adjacent to the stack in the storage device, the quantity of information having an initial state.” The Applicant respectfully asserts that nowhere does the *Gosling* reference disclose this limitation, particularly with respect to the insertion of a quantity of information adjacent to the stack.

The portion of the *Gosling* reference from column 9, line 61, through column 10, line 16, relied upon by the Examiner states:

The virtual stack 344 stores data type information regarding each datum that will be stored by the bytecode program 340 in the operand stack during actual execution. In the preferred embodiment, the virtual stack 344 is used in the same way as a regular stack, except that instead of storing actual data and constants, the virtual stack 344 stores a data type indicator value for each datum that will be stored in the operand stack during actual execution of the program. Thus, for instance, if during actual execution the stack were to store three values:

HandleToObjectA

5

1

the corresponding virtual stack entries will be

R

I

I

where "R" in the virtual stack indicates an object reference and each "I" in the virtual stack indicates an integer. Furthermore, the stack counter 342 in this example would store a value of 3, corresponding to three values being stored in the virtual stack 344.

As the Examiner can clearly see, the text of the *Gosling* reference relied upon by the Examiner only discusses the writing of data type indicator values into the entries of the virtual stack 344. It does not mention inserting data of any kind adjacent to (i.e., at the top or bottom) the stack. The claimed invention uses a guard frame (i.e., quantity of information) that may be inserted at the top and/or bottom (i.e., adjacent to) of the stack in order to detect overflow and/or underflow conditions that erroneously overwrite the guard frame.

Furthermore, the *Krause* reference does nothing to overcome the shortcomings of the *Gosling* reference. The Examiner asserted that the *Krause* reference (Figure 4, item 42 and Figure 5, item 168) discloses the Claim 10 limitations regarding "inserting a first quantity of information adjacent to a top of the stack in the storage device; and inserting a second quantity of information adjacent to a bottom of the stack in the storage device." The Applicant respectfully asserts that nowhere does the *Krause* reference disclose this Claim 10 limitation or the corresponding limitation in Claim 1 regarding the insertion of a quantity of information adjacent to the stack. The Examiner also asserted that the "TCP/IP stack" purportedly shown in Figures 4 and 5 of the *Krause* reference are the same as the stack recited in Claim 1. The Applicant respectfully disagrees with the Examiner's description of the device disclosed in the *Krause* reference. The Applicant notes that the memory stack used by a processor is not the same as, or even remotely similar to, a TCP/IP stack. The term "TCP/IP stack"

refers to a plurality of protocol layers used to communicate across a network. The Applicant notes that item 42 in Figure 4 is "encryption technology 42" and item 168 in Figure 5 is "encryption technology 168." In both cases, the encryption technology is either a hardware-based or software-based encryptor. Items 42 and 168 clearly do not function as guard frames inserted adjacent to a true stack in memory.

In sum, the unique and novel limitations recited in Claim 1 are not disclosed, suggested or even hinted at in the *Gosling* reference or the *Krause* reference, or in the combination of the *Gosling* reference and the *Krause* reference. This being the case, Claim 1 presents patentable subject matter over the *Gosling* reference and the *Krause* reference. Also, Claims 2-10 depend from Claim 1 and contain all of the unique and novel limitations recited in Claim 1. Thus, Claims 2-10 are patentable over the *Gosling* reference and the *Krause* reference.

Furthermore, independent Claims 11 and 21 contain limitations that are analogous to the unique and novel limitations recited in Claim 1. Claims 11 and 21 are therefore patentable over the *Gosling* reference and the *Krause* reference, both individually and in combination. Finally, dependent Claims 12-20, which depend from Claim 11 and dependent Claims 22-25, which depend from Claim 21, contain all of the unique and novel limitations recited in Claims 11 and 21, respectively. This being the case, Claims 12-20 and 22-25 are patentable over the prior art references.


SUMMARY

For the reasons given above, the Applicant respectfully requests reconsideration and allowance of pending claims and that this Application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at jmockler@davismunck.com. The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,
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